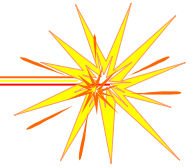




# The Current Land Warrior System (The Baseline)



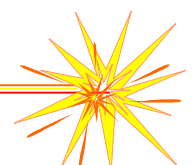
# LW Battery Use Strategy



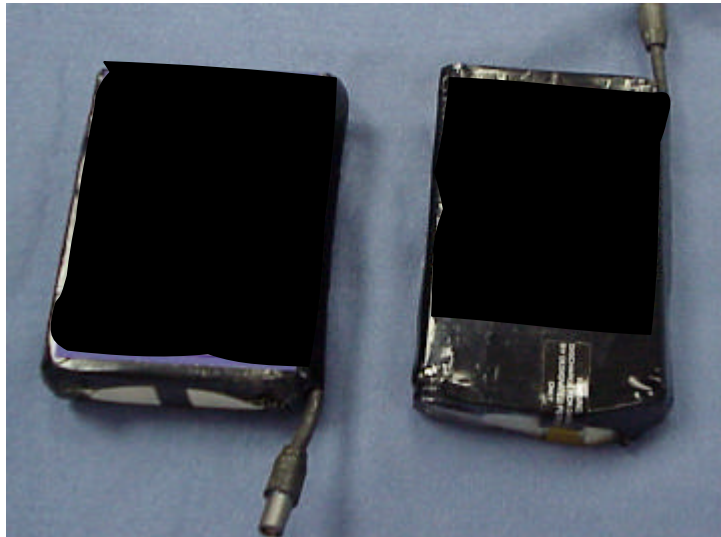
- **Disposable battery during War**
- **Rechargeable battery during training**  
(Disposable batteries also used for training)



# Land Warrior v0.6 Batteries



Disposable Battery



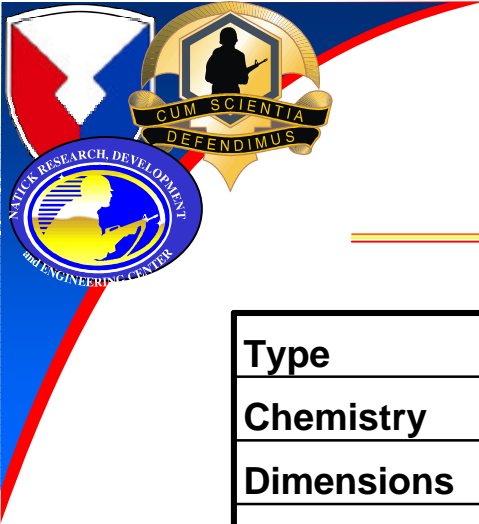
~14 hrs @ 24 watts @ 24 °C

Rechargeable Battery

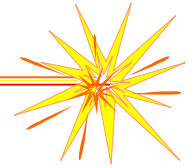


~6.5 hrs @ 24 watts @ 24 °C

Source: CECOM, PM-Soldier



# Land Warrior v0.6 Battery Characteristics

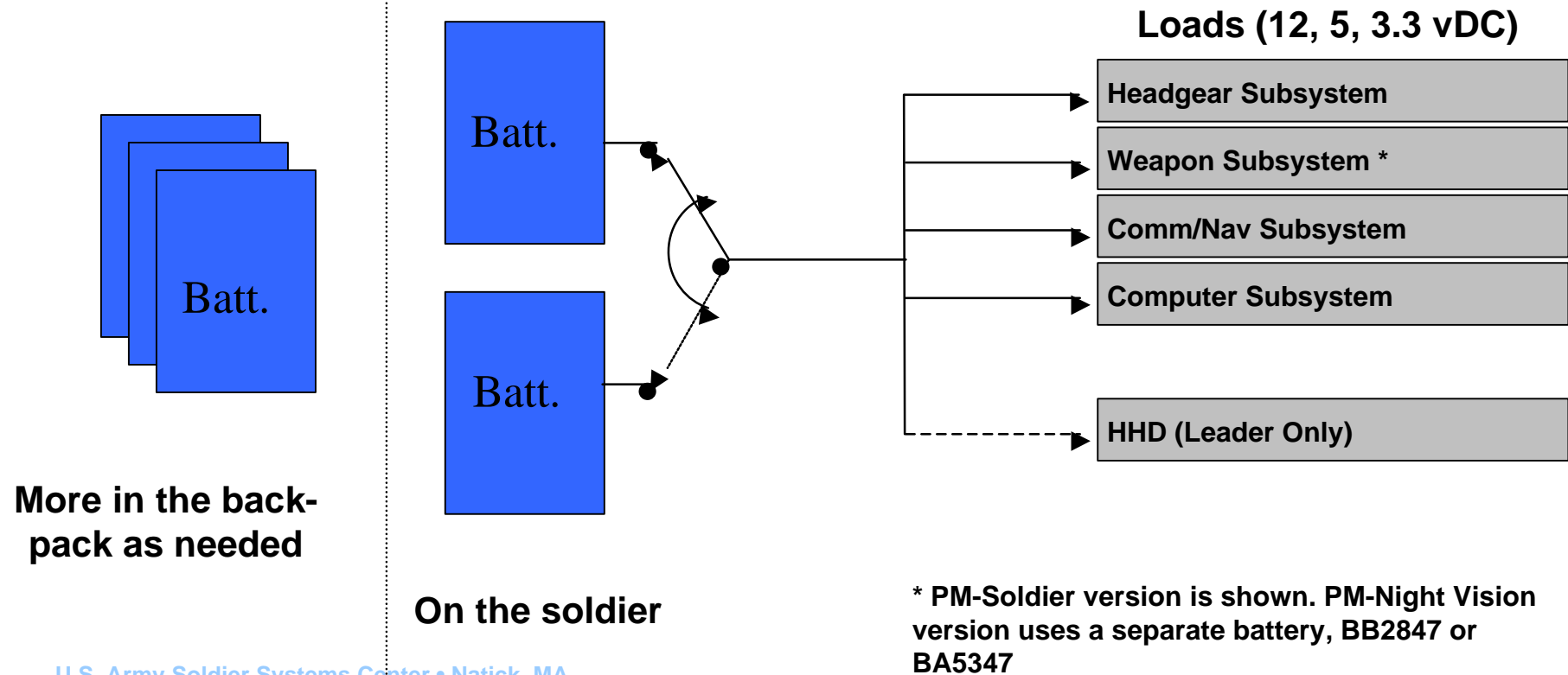
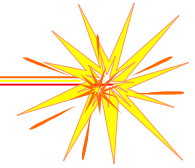


Type		Disposable	Rechargeable
Chemistry		LiMnO2	Li Ion
Dimensions	inches	5.9 x 4.4 x 1.6	5.6 x 5.2 x 1.6
Volume	Liters	0.68	0.76
Weight	Lbs	2.4	3.0
Nominal Energy	Wh	310	160
Nominal Power	Watts	56	100
Nominal Voltage	DC	13.5	14.4
Charge/Discharge Cycles (224 cycles is current spec)	---	---	500
Gravimetric Energy Density	Wh/kg	285	118
Gravimetric Power Density	W/kg	51	73
Volumetric Energy Density	Wh/l	456	211
Volumetric Power Density	W/l	82	132

Source: CECOM, PM-Soldier

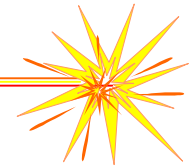


# Land Warrior v0.6 Disposable Battery





# Land Warrior v0.6 Rechargeable Battery



Re-supplied every 24 hrs.

Batt.

On Charge

Batt.

In Transit

Batt.

In the back-pack

Batt.

Batt.

On the soldier

Loads (12, 5, 3.3 vDC)

Headgear Subsystem

Weapon Subsystem \*

Comm/Nav Subsystem

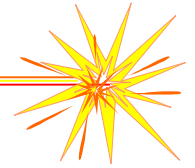
Computer Subsystem

HHD (Leader Only)

\* PM-Soldier version is shown. PM-Night Vision version uses a separate battery, BB2847 or BA5347



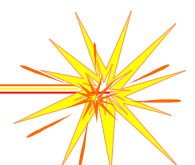
# LW v0.6 Operating in Water



Ft. Bragg, July 2000



## Take-Away Message



**Soldiers need compact, lightweight, energy-dense sources of power**

